

CLAIMS:

1. A device for inspecting element substrates comprising a source of electromagnetic waves and an opposing detector substrate, the source of electromagnetic waves ionizing a gas present between the opposing detector substrate and an element substrate that is to be inspected.
2. A device according to claim 1, wherein the source of electromagnetic waves generates electromagnetic waves or X-rays of a wavelength of from 0.01 to 100 nm.
3. A device according to claim 1, further comprising means for measuring an electric current between the opposing detector substrate and the element substrate.
4. A device according to claim 1, wherein the opposing detector substrate has an opposing detector electrode.
5. A device according to claim 4, wherein the opposing detector electrode is made of a conductor that permits the transmission of electromagnetic waves or X-rays of a wavelength of 0.01 to 100 nm.
6. A device according to claim 5, wherein the opposing detector electrode is made of beryllium or aluminum.

7. A device according to claim 1, wherein the opposing detector substrate has plural TFTs and plural electrodes connected to the TFTs.
8. A device according to claim 1, further comprising means for so moving the element substrate that the distance becomes the shortest between the source of electromagnetic waves and the to-be-detected position on the element substrate.
9. A device according to claim 1, further comprising means for so moving the opposing detector substrate and the element substrate that the distance becomes the shortest among the source of electromagnetic waves, the to-be-detected position on the element substrate and the corresponding position of the opposing detector electrode.
10. A method of inspecting element substrates by measuring an electric current between the element substrate and an opposing detector substrate by using a device according to claim 1, thereby to inspect the current-flowing state of the pixel electrodes of the element substrate.

11. A method of inspecting element substrates by emitting electromagnetic waves from a source of electromagnetic waves in order to ionize a gas between the opposing detector substrate and the element substrate to be inspected.
12. A method according to claim 11, wherein the source of electromagnetic waves generates electromagnetic waves or X-rays of a wavelength of 0.01 to 100 nm.
13. A method according to claim 11, wherein a current is measured between the opposing detector substrate and the element substrate.
14. A method according to claim 11, wherein the element substrate is so moved that the distance becomes the shortest between the source of electromagnetic waves and the to-be-detected position on the element substrate.
15. A method according to claim 11, wherein the opposing detector substrate and the element substrate are so moved that the distance becomes the shortest among the source of electromagnetic waves, the to-be-detected position on the element substrate and the corresponding position of the opposing detector electrode.